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GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
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MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU,
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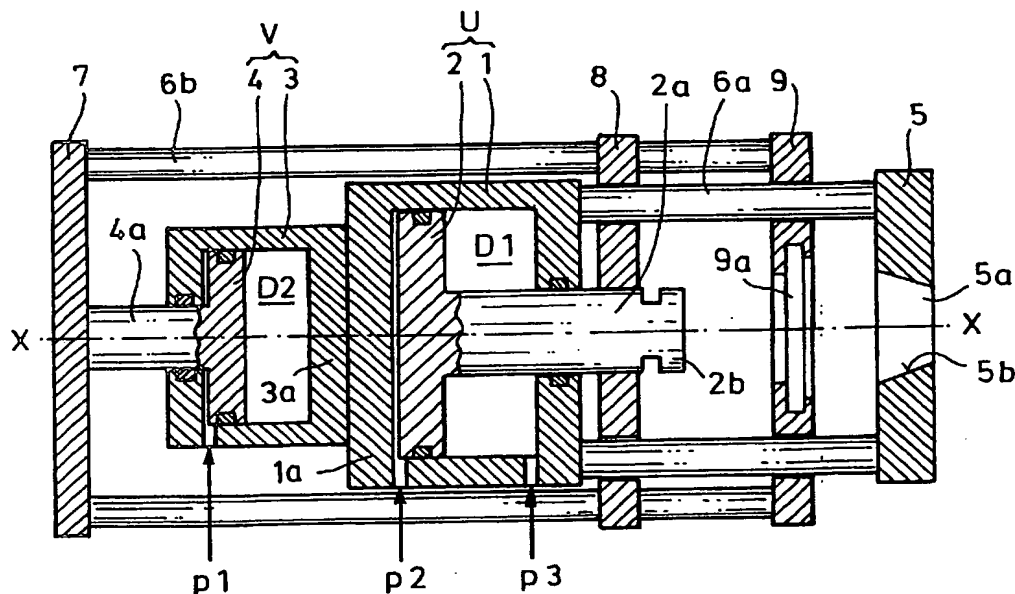
(71) Anmelder (für alle Bestimmungsstaaten mit Ausnahme von
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scheider Str. 52-54, 51688 Wipperfurth (DE).

(84) Bestimmungsstaaten (regional): ARIPO-Patent (GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
eurasisches Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ,

[Fortsetzung auf der nächsten Seite]

(54) Title: DEVICE FOR THE PLASTIC DEFORMATION OF WORK PIECES

(54) Bezeichnung: VORRICHTUNG ZUM PLASTISCHEN VERFORMEN VON WERKSTÜCKEN



(57) Abstract: The invention relates to a device for the plastic deformation of work pieces, especially for the plastic transformation of the ends of tubes, provided with a transforming unit (U) actuated by the pressure of a fluid and a pre-tensing unit (V) which is actuated by the pressure (p1) of a fluid and arranged on a common longitudinal axis (X-X), in addition to conical clamping elements which can be tensed by means of the pre-tensing unit (V). At least one separate pressure chamber (D1, D2) is respectively formed in the transforming unit (U) and in the pre-tensing unit (V), which can be pressurised independently from the pressure chamber (D2, D1) of the other unit (V, U). The transforming unit (U) and the pre-tensing unit (V) are embodied as fully sealed components which are however joined together.

[Fortsetzung auf der nächsten Seite]

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/02731

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B21D41/00 B21D17/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B21D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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A	DE 100 40 596 C (PARKER HANNIFIN GMBH) 13 September 2001 (2001-09-13) cited in the application	
A	DE 195 11 447 A (WALTERSCHEID GMBH JEAN) 2 October 1996 (1996-10-02) cited in the application	
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

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Peeters, L

INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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INTERNATIONALER RECHERCHENBERICHT

Internationales Aktenzeichen

PCT/EP 03/02731

C.(Fortsetzung) ALS WESENTLICH ANGESEHENE UNTERLAGEN

Kategorie*	Bezeichnung der Veröffentlichung, soweit erforderlich unter Angabe der in Betracht kommenden Teile	Betr. Anspruch Nr.
A	DE 297 20 321 U (TRANSFLUID MASCHINENBAU GMBH) 12. Februar 1998 (1998-02-12) in der Anmeldung erwähnt -----	
A	DE 94 10 419 U (MACH MONTAGETECHNIK FROEHLICH) 29. September 1994 (1994-09-29) -----	
A	US 2001/035038 A1 (OSE PAUL N) 1. November 2001 (2001-11-01) -----	

INTERNATIONALER RECHERCHENBERICHT

Internationales Aktenzeichen

PCT/EP 03/02731

Im Recherchenbericht angeführtes Patentdokument	Datum der Veröffentlichung	Mitglied(er) der Patentfamilie	Datum der Veröffentlichung
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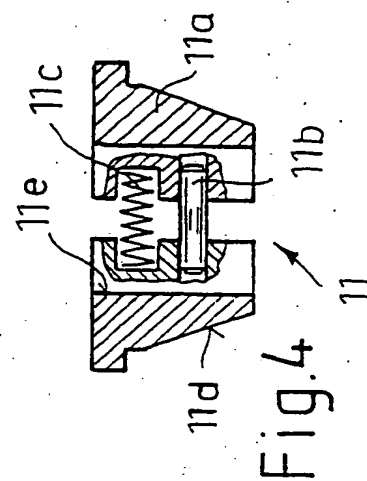
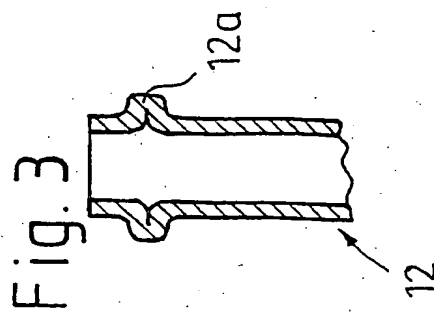
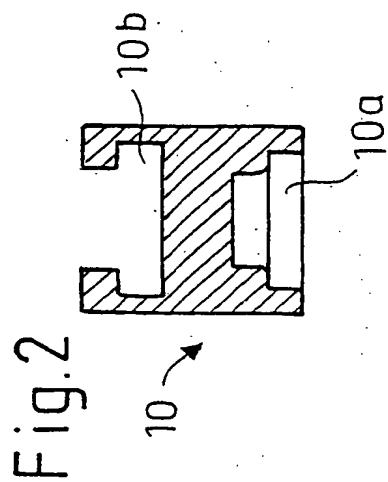
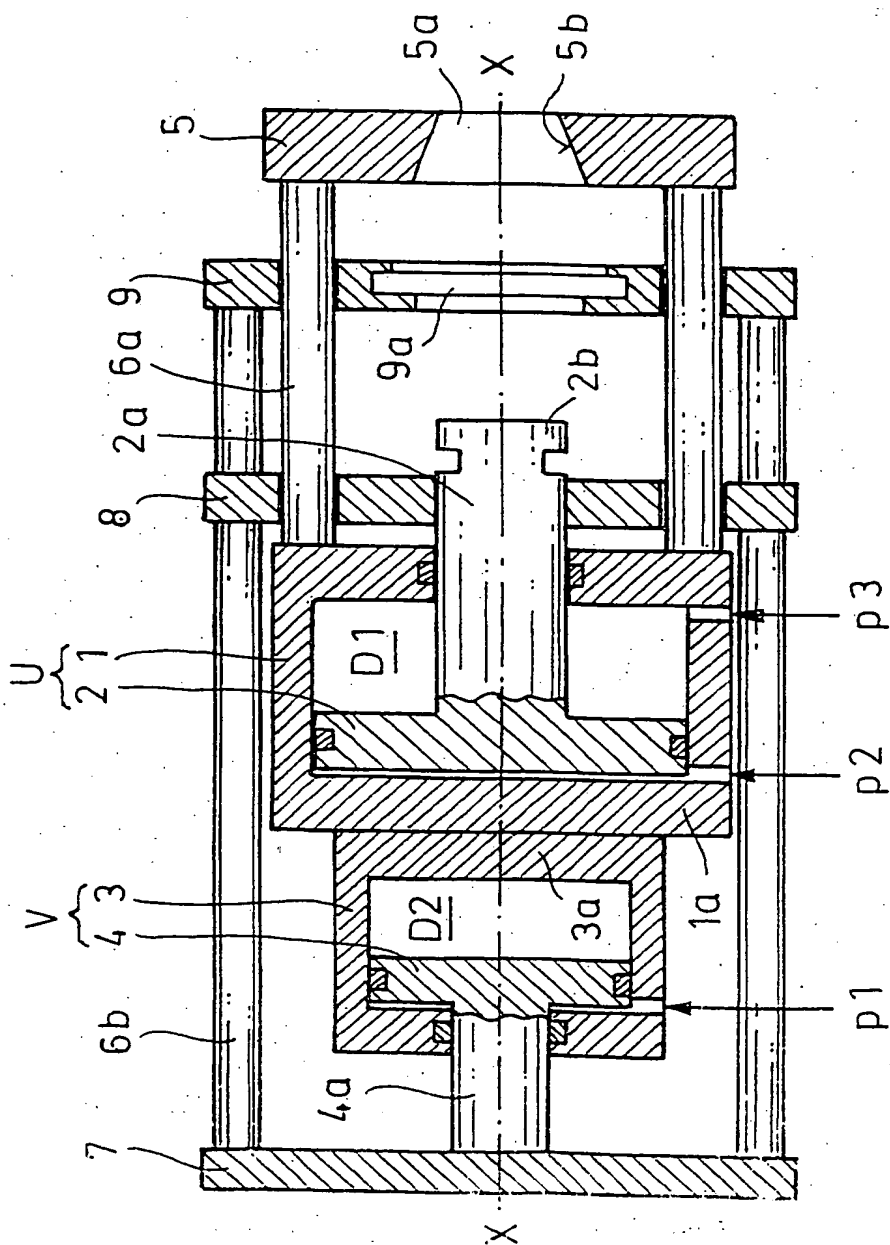


Fig.1



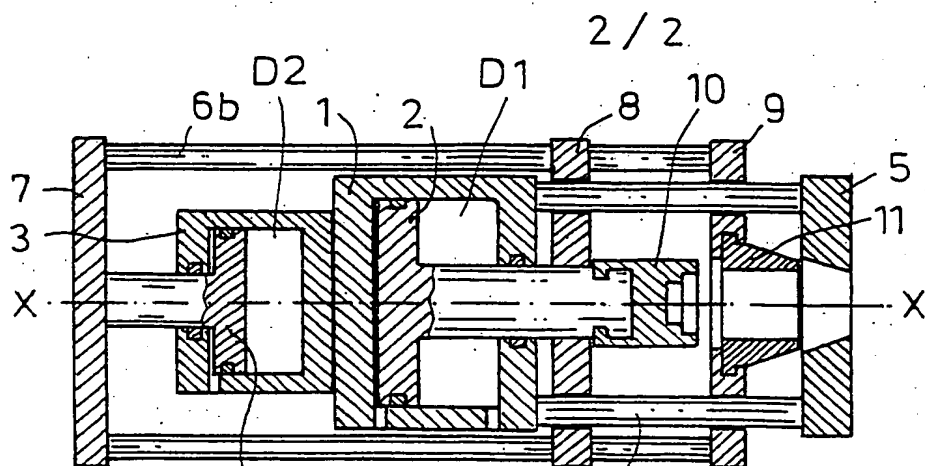


Fig. 5a

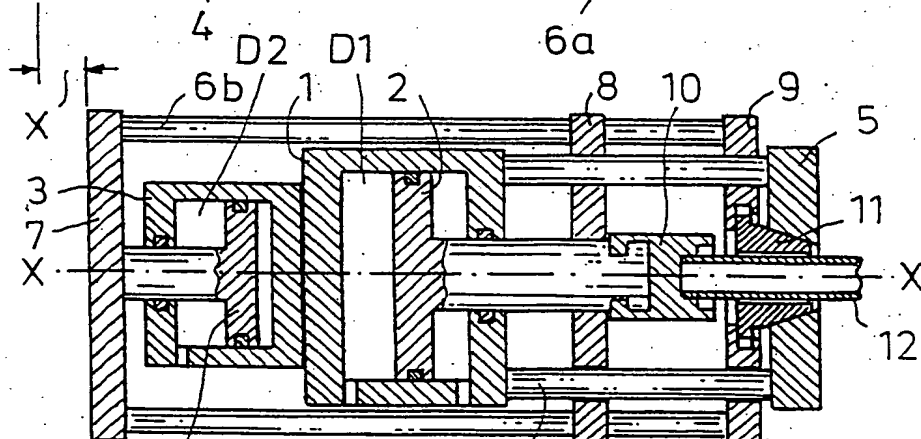


Fig. 5b

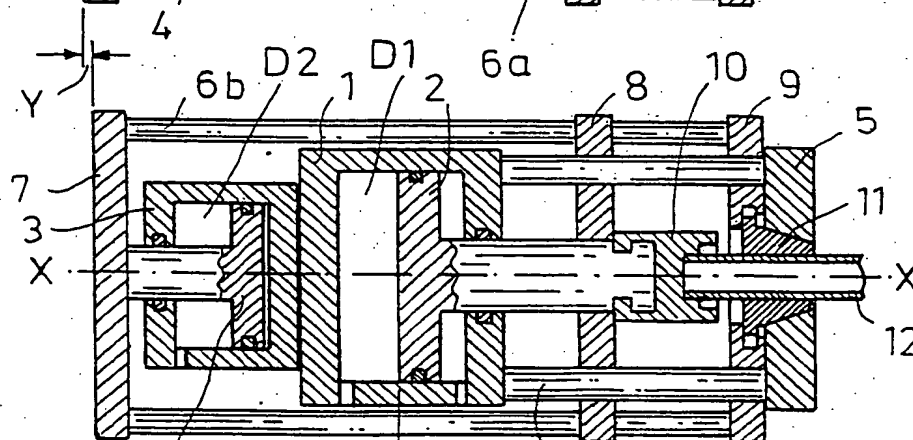


Fig. 5c

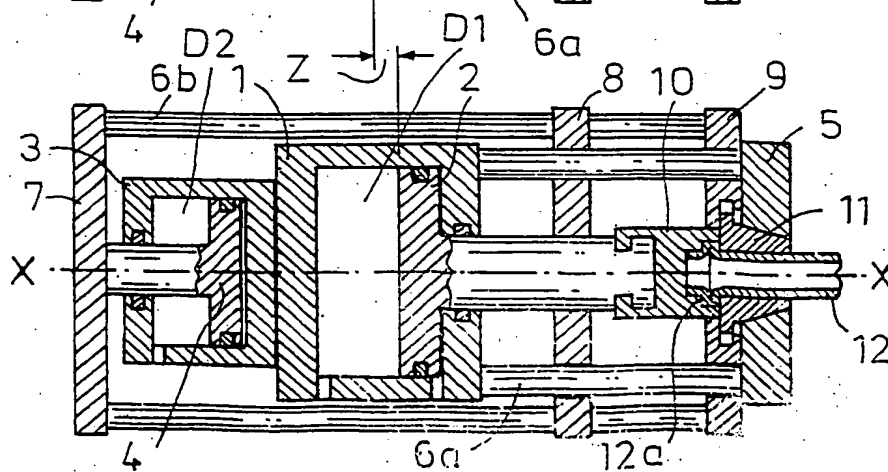


Fig. 5d